

K-12 Technology Curriculum



Muscatine Community School District
1403 Park Avenue
Muscatine IA 52761

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Mission

The mission of the Muscatine Community School District is to ensure excellence in education for every student.

Vision

The Muscatine Community School District will provide a safe, nurturing environment where academic excellence is expected and diversity is recognized as a strength. We will meet individual needs while developing independent learners who are also successful team players.

We will embrace innovative practices that are research-based and promote high levels of student learning. Technology-rich classrooms will enhance active learning and excitement. Interior and exterior walls will become seamless as learners and the community collaborate.

Our students will achieve positive social skills, which promote respect and responsibility to self, family and community, resulting in positive self esteem.

School-community partnerships will prepare and challenge each individual to become a goal-oriented, lifelong learner in an ever-changing global society.

Goals of District Technology Committee

1. Integrate technology into the curriculum.
2. Finish cabling all the district classrooms.
3. Hire additional technology personnel.
4. Establish district technology standards.
5. Maintain district web site and delegate each school a web page by January, 1998.
6. Continue to provide staff development in the use of technology.
7. Set standards for network procedures: communicate the standards and provide training.
8. Establish a finance plan.

TECHNOLOGY STRANDS AND STANDARDS

STRAND 1: BASIC OPERATIONS AND CONCEPTS

Standard: Students are proficient in the use of technology.

STRAND 2: SOCIAL, ETHICAL AND HUMAN ISSUES

Standard: Students understand the ethical, cultural, and societal issues related to technology. Students practice responsible use of technology systems, information, and software.

STRAND 3: TECHNOLOGY PRODUCTIVITY TOOLS

Standard: Students use technology tools to enhance learning, increase productivity and creativity.

STRAND 4: TECHNOLOGY COMMUNICATION TOOLS

Standard: Students publish, interact and communicate information and ideas to multiple audiences.

STRAND 5: TECHNOLOGY RESEARCH TOOLS

Standard: Students use appropriate technology to locate, evaluate, and collect information from a variety of sources. Students use appropriate technology tools to process data and report results.

Strand #1 Basic Operations and Concepts

Standard: Students are proficient in the use of technology.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
K.1.1	Clicks on icon to perform functions	<ul style="list-style-type: none"> Independently use/interact with program demonstrating these skills 	Living Books	<ul style="list-style-type: none"> Demonstrate skills using <u>Cat in the Hat Living Book</u> (Broderbund) for Dr. Seuss's birthday. Have each child demonstrate skills by interacting with a minimum of 3 pages independently.
K.1.2	Uses mouse to reach anything on screen			
K.1.3	Uses click and drag when appropriate			
K.1.4	Understands wait time including icon showing hard drive or disk drive activity (spinning ball, hour glass, etc.) Important to safely removing disks and not 'freezing' up machine			
K.1.5	Identifies letter/numbers on a keyboard			
K.1.6	Demonstrates proper care and handling of computer including: no food or drinks near computer, minimize possibility of static discharge.	<ul style="list-style-type: none"> Student will state proper rules in discussion. 	Posters showing appropriate care of computers. (Teacher may add additional rules as appropriate)	<ul style="list-style-type: none"> During discussion of classroom rules, these will be included. Students will be asked to state rules related to the computer before using first several times.
1.1.1	Opens or closes a program	<ul style="list-style-type: none"> Insert CD or disk, launch and operate program w/assistance 	Grade appropriate Cd or disk	
1.1.2	Inserts disk/CD properly, including: uses eject button on CD drives, closing programs/files before ejecting disks, waiting for drive to stop, dragging disk to trash (Mac) and waiting for disk to eject completely	<ul style="list-style-type: none"> Insert CD or disk, launch and operate program 	Grade appropriate CD or disk	

Strand #1 Basic Operations and Concepts

Standard: Students are proficient in the use of technology.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
1.1.3	Uses left hand/right hand on appropriate sides of keyboard (Pre-keyboarding skill)			
2.1.1	Understands there is correct procedure to turn on and shut down a computer, including exiting/quitting open files and programs, logging on and off	<ul style="list-style-type: none"> •Participate in class or small group discussion on proper procedures. Note: Students will not be required to shut down, start, log on or log off in second grade. 		
2.1.2	Uses shift, caps lock, tab, and arrow keys	<ul style="list-style-type: none"> •Student will use program to create, save, and print a document with assistance. 		
2.1.3	Uses menu bar to move around program			
2.1.4	Saves to a floppy or folder			
2.1.5	Prints a document using either the menu bar, menu button or keyboard shortcut.			
3.1.1	Understands difference between minimize and quit (PC) and/or Understands difference between close and exit (Mac)	<ul style="list-style-type: none"> •Close and quit program when directed (Mac) and/or Minimize and/or close program when directed (PC) 		
3.1.2	Uses finder appropriately (Mac) and/or Uses task bar appropriately (PC)	<ul style="list-style-type: none"> •Move between open applications 		

Strand #1 Basic Operations and Concepts

Standard: Students are proficient in the use of technology.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
3.1.3	Accesses the Help menu	<ul style="list-style-type: none"> •Open Help menu and locate specific topic chosen by teacher 		<ul style="list-style-type: none"> •When teaching literature skills such as index, table of contents, and alphabetical order, use the Help menu as an electronic example. •In lab situation, have teams 'race' to find the correct topic under Help menu. For example, teacher says I want this type to be bigger. Find the topic which would tell me how to do it. •Independent worksheet idea: List the topic (font) or given the problem (want to make the print bigger). Student is to write first five words of correct Help paragraph.
3.1.4	Knows home row and attempts to use correct fingering (keyboarding)	<ul style="list-style-type: none"> •Type short passage from model using correct fingers 	Type to Learn Word or other word processing program	<ul style="list-style-type: none"> •Type note or invitation home to parent about upcoming activity using model provided by teacher
4.1.1	Uses 'find' function to locate a file	<ul style="list-style-type: none"> •Will find 'hidden' file by using name, partial name, or date in the find function 		
4.1.2	Demonstrates good keyboarding skills	<ul style="list-style-type: none"> •Type short passage from model using correct fingering 	Type to Learn Word or other word processing program	<ul style="list-style-type: none"> •Type note or invitation home to parent about upcoming activity using model provided by teacher

Strand #1 Basic Operations and Concepts

Standard: Students are proficient in the use of technology.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
5.1.1	Saves to various locations	<ul style="list-style-type: none"> •Produce and save a document to at least two locations (hard drive, disk, zip, server) 	Word processor Paint program Multi-media program	<ul style="list-style-type: none"> •As student prepares a Hyper Studio presentation, have them always save in two places. For example, always one copy on the hard drive for teacher use and one on their own disk as a back up or to take to other computers.
5.1.2	Demonstrates good keyboarding skills	<ul style="list-style-type: none"> •Type short passage using correct fingering 	Type to Learn Word or other word processing program	<ul style="list-style-type: none"> •Type note or invitation home to parent about upcoming activity. •Encourage proper keyboarding when using email.
6, 7, 8	M1.1 Logging on and off a computer network.	<ul style="list-style-type: none"> • Using their users name and password, students log into the network. • Log off the network. 	Computer Network	<ul style="list-style-type: none"> • Log ON and OFF the LAN
6, 7, 8	M1.2 Navigating to the correct local/folder on the network.	<ul style="list-style-type: none"> • While logged into the network students navigate to their local/folder. 	Computer Network	<ul style="list-style-type: none"> • Using MS Word, students open their local/folder and then save the document into their local/folder.
6, 7, 8	M1.3 Print using a networked printer.	<ul style="list-style-type: none"> • Access and use the networked printer. 	Computer Network	<ul style="list-style-type: none"> • Using MS Word, students go to the print window and choose the appropriate networked printer.
6, 7, 8	M1.4 Increases keyboarding skills (accuracy and speed)	<ul style="list-style-type: none"> • Keyboard lessons from the textbook using correct keyboarding techniques. 	Computer MS Word	<ul style="list-style-type: none"> • Timed Tests • MS Word projects
6, 7, 8	M1.5 Use correct shut down procedures.	<ul style="list-style-type: none"> • Demonstrate how to correctly shut down a computer. PC and MAC 	Computer	<ul style="list-style-type: none"> • Shut down a PC or MAC computer correctly.

Strand #1 Basic Operations and Concepts

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Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
6, 7, 8	M1.6 Implement trouble-shooting technique using control+Alt. Delete. PC	<ul style="list-style-type: none"> • Press the control alt and delete keys to end task. 	Computer PC MS Word	<ul style="list-style-type: none"> • While in MS Word use control Alt delete to exit the program. Discuss computer freeze/crash.
6, 7, 8	M1.7 Use of right mouse button/clicker.	<ul style="list-style-type: none"> • Use the right click button on the mouse to select from the pop up menu. 	Computer PC MS Word	<ul style="list-style-type: none"> • While in MS Word document, right click inside the Word window and select font.
6, 7, 8	M1.8 Identify and understand the use of on/off, reset and monitor switches.	<ul style="list-style-type: none"> • Locate the on/off, reset and monitor switches. 	Computer MS Word	<ul style="list-style-type: none"> • Class discussion
6, 7, 8	M1.9 Understands wait time (while computer works) mouse pointer with hour glass or spinning ball.	<ul style="list-style-type: none"> • Do not click on program icons while the computer is logging onto the network. 	Computer	<ul style="list-style-type: none"> • Logging in
9-12, Staff	H1.1 Function on a Network	<ul style="list-style-type: none"> • Log on and save to the correct home directory. • Navigate to various folders on the network. • Print to correct location. • Apply appropriate wait time especially when printing. 	Computer Network	<ul style="list-style-type: none"> • Science article summary • Language Arts writing • Social Studies PowerPoint
9-12, Staff	H1.1 Basic Trouble-shooting	<ul style="list-style-type: none"> • Close all programs and log-on as a different user. • Cntrl: Alt: Del 	Computer Network	

Strand #2 Social, Ethical & Human Issues

Standard: Students understand the ethical, cultural, and societal issues related to technology. Students practice responsible use of technology systems, information, and software.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
K.2.1	Identifies ways students use technology.	•Name three uses of technology		•Teacher and/or students cut out magazine pictures of technology, such as McDonalds, VCR's microwave, calculator, etc. Discuss.
K.2.2	Understands that original work belongs to person who created it (pre-copyright awareness).	•Will write their name on their work (electronic or otherwise) to show ownership.		•Classroom discussion including pride in one's work vs. using someone's else's work.
1.2.1	Respects privacy of other's files	•Students will access only appropriate files or programs	Kid Desk software for in-class email	•Discussion of privacy, ownership and respect.
1.2.2	Respects rights of other's works by not copying it or asking permission to copy it.			
2.2.1	Understands purpose of copyright	•Using information gathered from an electronic reference, student will paraphrase to create own text for a project (i.e. HyperStudio).	Media Specialist Software documentation	•Discuss why it is wrong to copy work, whether answers to a worksheet, a paragraph from a book, or a picture from Electric Library. Look for copyright in various sources (written and electronic). Have small groups paraphrase a selection from Electronic Library. Compare and discuss.

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Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
3.2.1	Aware of district Acceptable Use Policy (AUP) and reasons it is necessary.	<ul style="list-style-type: none"> •Given activity, can state if it is acceptable or not. 	<ul style="list-style-type: none"> •District AUP, available from media center •Teacher/class-made poster with AUP translated into grade level language •Poster of classroom rules related to computers 	<ul style="list-style-type: none"> •As large group, break down AUP into third grade language. •List variety of activities on index cards. As group or individuals, categorize as acceptable or unacceptable and discuss reasons. Example: Sam found game with guns and kills. Is this acceptable at school? Why or why not? •Discuss poster. Discuss what consequences will happen for inappropriate use.
3.2.2	Uses computers at school appropriately.			
3.2.3	Composes e-mail using proper e-mail etiquette	<ul style="list-style-type: none"> •Compose and send email in teacher-directed setting, using appropriate capitalization, greeting, and signature. 	See district web page for etiquette guidelines.	<ul style="list-style-type: none"> •Compare e-mail etiquette to letters and conversation, discussing similarities and differences. •View and discuss web site
3.2.4	Composes e-mail using proper safety precautions.	<ul style="list-style-type: none"> •Given printed version of e-mail, will identify unsafe behaviors such as giving personal data 	Story of e-mail fraud with children on district web page	<ul style="list-style-type: none"> •Story of e-mail fraud with children. Read and discuss.

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Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
4.2.1	Recognizes, exits and reports inappropriate sites accessed by accident	Identifies: <ul style="list-style-type: none"> • a minimum of 2 criteria which make a site inappropriate • a minimum of 2 ways to exit a site quickly and • identifies two reasons to report the site. 	Teacher-created worksheet or poster showing: <ul style="list-style-type: none"> •Criteria-sex, violence, adult matter, bad language, obvious hate/prejudice, not the topic being researched, etc. •Exit/back button, exit button, turn off monitor, turn off computer •Reasons to report- so no one else will make same mistake, if classmate reports you first, because you are honest! 	To avoid this becoming a moral issue or embarrassing topic for some, it is suggested it be approached as: <ol style="list-style-type: none"> 1. a safety issue - some sites, just as some areas of a city, are unsafe and you need to stay away from them 2. what is appropriate at home may not be appropriate at school or work, ie: games involving guns or violence 3. a site may be interesting and age appropriate, but if it is not the topic you are to be researching, it is no different than reading a sports magazine during math time.
4.2.2	Composes e-mail using proper safety precautions.	•Given printed version of e-mail, will rewrite a 'safer' version.	Story of e-mail fraud with children.	•Story of e-mail fraud with children. Read and discuss.

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4.2.3	Uses proper etiquette when using e-mail	•Compose and send e-mail using appropriate capitalization, greeting, and signature.	MCS web page Media Specialist	•Compare e-mail etiquette to letters and conversation, discussing similarities and differences.
4.2.4	Cites on-line resources when used in reports or projects.	•Acknowledgment or bibliography page recognizing on-line resources in classroom assignment	MCS web page Media Specialist	•Explore sites. Discuss reasons for acknowledgment.
5.2.1	Uses proper etiquette when using e-mail	•Compose and send e-mail using appropriate capitalization, greeting, and signature.	Key pals Classroom e-mail	
5.2.2	Composes e-mail using proper safety precautions.	•Given printed version of e-mail, will rewrite a 'safer' version.	Story of e-mail fraud with children.	•Story of e-mail fraud with children. Read and discuss.
5.2.3	Understands technology skills are required in various occupations	•Will state how technology is used in a minimum of three occupations		•Interview 5 people to determine how technology is used in their jobs. •Use want ads to determine which jobs require technology skills •Ask parents how they use technology

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Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
6, 7, 8	M2.1 Identify Responsible Use of Network Applications	<ul style="list-style-type: none"> • Demonstrate proper use of email etiquette and procedures in a supervised environment. • Awareness of the capability to have your email monitored by school personnel, employer, etc. • Recognize the cost of printing non-essential materials and large documents from the internet. • State what plagiarism is and list a minimum of three consequences for plagiarism. 	Computer Network and Internet	6 th – 8 th Grade Computer Class: <ul style="list-style-type: none"> • Internet search • Project – Face on Mars • Gather Information and document sources • Class discussion
6, 7, 8	M2.2 Understand the Impact of Technology on Society, Economics, Communication, and Daily Life	<ul style="list-style-type: none"> • Identify a minimum of three subject specific websites for experts in a given field. • Email a local, regional, national, or international expert about a specific topic. • Identify a minimum of three locations where individuals can have access to the internet. 	Computer and Internet	6 th – 8 th Grade Computer Class: <ul style="list-style-type: none"> • Class discussion on the work place and how technology has altered it Science: <ul style="list-style-type: none"> • When completing science fair project contact an expert to gain information about your project. Social Studies: <ul style="list-style-type: none"> • Caribbean Unit, South American Unit

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Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
6, 7, 8	M2.3 Recognize that excessive computer usage can be hazardous to one's health.	<ul style="list-style-type: none"> • Identify a minimum of three hazards of excessive computer use in relationship to one's overall health. 	Computer and Internet	<ul style="list-style-type: none"> • Covered in the Carpal Tunnel Project
6, 7, 8	M2.4 Recognize how the use of technology can enhance one's health.	<ul style="list-style-type: none"> • Compare the pros and cons of getting medical advice from the internet. • Locate a minimum of three appropriate websites that contain information to enhance one's health. 	Computer and Internet	Science: <ul style="list-style-type: none"> • Discussion and Venn Diagram to compare pros and cons. • Internet Search – Computers and Carpal Tunnel Syndrome
6, 7, 8	M2.5 Develop aware-ness and knowledge of precautions while accessing and using the internet.	<ul style="list-style-type: none"> • List the proper etiquette and possible dangers if visiting a chat room. • Identify ways to respond appropriately to unknown emailers. • Understand what a cookie is and how it can affect you negatively and how to delete cookies from your computer. • Understand what a virus is and how to avoid getting one on your computer. 	Computer and Internet	6 th – 8 th Grade Computer Class: <ul style="list-style-type: none"> • Class discussion covering the dangers of chat rooms and email • What is a cookie?

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Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
6, 7, 8	M2.6 Recognize the importance of technology in getting and keeping a job.	<ul style="list-style-type: none"> • Learn the steps involved in posting a simple resume on the web. • Identify specific skills needed for a specific occupation. • Research and report on the top five “computer” careers available today. 	Computer and Internet	<p>8th Grade Speech:</p> <ul style="list-style-type: none"> • Complete a sample resume <p>8th Grade</p> <ul style="list-style-type: none"> • After the job shadowing experience, list the technology skills used in that occupation. <p>6th – 8th Grade Computer Class:</p> <ul style="list-style-type: none"> • Class discussion on the explosion of the informational technology field.
9-12, Staff	H2.1 Develop responsible use of Network Applications (email, privacy, issues, cost of technology)	<ul style="list-style-type: none"> • Proper use of email as per building policy. • Security concerns, passwords, and personal information • All use of school computers monitored • Printing may be restricted because of cost. 	Network	
9-12, Social Studies	H2.2 Understand the impact of technology on society, economics, communications, and daily life			

Strand #2 Social, Ethical & Human Issues

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Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
9-12, Staff	H2.3 Explore careers	<ul style="list-style-type: none"> • Identify technology careers • Utilize technology to research careers 	Network research tools	Tenth Grade: <ul style="list-style-type: none"> • Careers Speech 11 th Grade: <ul style="list-style-type: none"> • Job Shadow
9-12, P.E.	H2.4 Realize the impact of technology on Health and Fitness	<ul style="list-style-type: none"> • Pros and Cons of online medical advice • Enhance health through appropriate web sites • Excessive use of the computer is not healthy • Emailing cannot replace “face-to-face” contact 		
Language Arts, English 9/9E	H2.5 Practice safe and responsible Internet usage	Dangers of Chatrooms <ul style="list-style-type: none"> • Beware not everything on the Internet is true or beneficial • Understand what a cookie is and how it may reveal personal information 	Magazine Articles	<ul style="list-style-type: none"> • Reading articles, discussions of chatroom use; benefits and problems using chatrooms
9-12, Composition, AP Language, AP Literature, Communications Classes	H2.5 Practice safe and responsible Internet usage	<ul style="list-style-type: none"> • Validity of Internet information/sites 	List of guidelines for valid sites	<ul style="list-style-type: none"> • Discussion, Question-Answer with students as they access sources, and use of the guidelines as they research

Strand #3 Technology Productivity Tools

Standard: Students use technology tools to enhance learning, increase productivity and creativity.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
K.3.1	Operates age appropriate paint program	•Create a one-page graphic document using Kid Pix	•Kid Pix •Stanley Sticker Stories	
K.3.2	Uses a toolbar in a paint program			
K.3.3	Uses a prepared spreadsheet	•Participates in whole class activity which interprets data on a prepared spreadsheet	Graph Club	•Class makes pictograph of number of students who walk home, ride the bus, or are picked up. Teacher uses same information and makes graph on Graph Club. Asks students to compare the information (is it the same?) and format (is it the same?)
1.3.1	Types text into age-appropriate program	•Student creates one-page document incorporating text and graphics	•Kid Pix •Hyper Studio •Student Writing and Research Center •Stanley Stickers	•Teacher reads book aloud (or students select individual book). •Student selects favorite 'scene' and draws picture of it with text describing it.
1.3.2	Creates graphics using toolbar			
1.3.3	Creates multi-media presentation	•Class creates multi-media presentation incorporating performance task 1.3.1		•Slide Show
1.3.4	Uses prepared spreadsheets	•Participates in group to prepare, print, and interpret graphs from spreadsheet information	Graph Club	•Poll students on who is eating main, alternate, or bringing a sack lunch. Enter that information on spreadsheet. Print graphs, discuss and interpret information.
1.3.5	Uses data bases available in school	•Student uses AR, on-line card catalog, or Electronic Bookshelf with assistance	•Accelerated Reader •Reading Counts Golden Book	

Strand #3 Technology Productivity Tools

Standard: Students use technology tools to enhance learning, increase productivity and creativity.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
2.3.1	Uses presentation software	•Create 4 card stack with minimum of 4 transition buttons, incorporating all benchmarks	Hyper Studio	•In pairs, students create a storyboard about a favorite book. One page is the title page, one page tells general idea of story, one page shows favorite part and one page tells about the students creating the stack.
2.3.2	Creates button with prepared sound			
2.3.3	Uses graphic toolbar independently			
2.3.4	Enters data into spreadsheet	•Enter data in prepared spreadsheet with assistance	•Graph Club •Word •Excel	•Whole class discussion of vacation plans. Have each student come to computer and enter data to signify if they will be staying home, traveling out of town, out of state or don't know. Print graph.
2.3.5	Uses data bases available in school	•Student uses AR, on-line card catalog, or Electronic Bookshelf independently	•Accelerated Reader •On-line card catalog •Electronic Bookshelf	
3.3.1	Create multi-media presentation	•Create multi-media presentation including animation	HyperStudio	
3.3.2	Formats fonts in word processing application	•Produce document using a minimum of two fonts.	•Word •Student Writing and Research Center	•Write class report. Title must be different font than body.
3.3.3	Uses editing skills, including cursor placement, highlighting, delete key and cut, copy and paste	•Given teacher corrections to a document can make them in most efficient manner.	•Word •Word processing program	•Students turn in rough draft of class report for corrections. When they make corrections, ask them for demonstrations.

Strand #3 Technology Productivity Tools

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Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
3.3.4	Given information, independently prepares a chart or graph	<ul style="list-style-type: none"> •Creates chart or graph with given data 	Graph Club	<ul style="list-style-type: none"> •Using math book problem that asks student to create graph from given information: Half the class create manual chart and half use computer. Compare. Reverse groups on next problem.
3.3.5	Uses keyboard to search/sort database independently	<ul style="list-style-type: none"> •Locate name or title on AR without continuous scrolling AND/OR •Use search function to locate topic with on-line card catalog 		
4.3.1	Uses microphone to record sounds	<ul style="list-style-type: none"> •Will create multi-media presentation, including original sound 	HyperStudio	
4.3.2	Uses multiple columns in word processing document	<ul style="list-style-type: none"> •Will produce document with one graphic and no spelling errors, to be printed as 1) one column and 2) multiple columns. 	<ul style="list-style-type: none"> •Word •Student Writing Center 	<ul style="list-style-type: none"> •Produce newsletter, real or imaginary, demonstrating the skills of columns, spell checking, and framed graphics.
4.3.3	Uses spell checker			
4.3.4	Understands different ways to insert graphics (object, clip art, frames).			
4.3.5	Manipulates digital graphic (from digital camera, Electric Library, Internet, scanner, etc.)	<ul style="list-style-type: none"> •Open graphic, and manipulate by resizing, cropping, morphing or copying a part of it. 	MicroSoft Photo Editor (Office Suite) or similar program with graphic manipulation capabilities.	<ul style="list-style-type: none"> •Students print original graphic and manipulated graphic. Classroom contest to see who can match the most originals with manipulated graphics. •Students morph a picture than write a story about it.

Strand #3 Technology Productivity Tools

Standard: Students use technology tools to enhance learning, increase productivity and creativity.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
4.3.6	Uses graphic tool bar independently	•Create an original picture using at least 10 graphic tools from the tool bar.	HyperStudio	
4.3.7	Enter and manipulate data in teacher-prepared spreadsheet.	•Enter and edit data on a spread sheet	•Graph Club •Excel	•Students record data such as own AR records, temperatures, hot/cold lunches, etc.
5.3.1	Move text between documents	•Will copy portion of text from one document and paste into different document	•Word HyperStudio	
5.3.2	Participates in class-created spreadsheet involving: <ul style="list-style-type: none"> • label columns and rows • sum row(s) and column(s) • sort alphabetically and numerically • format cells • print by setting print area 	•Class-created spreadsheet with criteria mentioned	•Excel	•Set up spreadsheet based on menu from local restaurant. Each student 'places' order by filling in spreadsheet correctly.
5.3.3	Uses video in multi-media presentation	•Group will create multi-media presentation incorporating video	•HyperStudio •Power Point •Camcorder and/or digital camera •VCR •TV	

Strand #3 Technology Productivity Tools

Standard: Students use technology tools to enhance learning, increase productivity and creativity.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
6,7,8	M3.1 Uses spreadsheet to organize and manipulate data into appropriate charts or graphs.	<ul style="list-style-type: none"> • Collect and report results of an activity on a spreadsheet utilizing formulas and converting the data table to a chart. 	EXCEL	<ul style="list-style-type: none"> • Pizza Picks, 6th grade. Students gather and record data from survey of favorite pizza, enter data on spreadsheet, use formula to figure percentage, and create a pie chart. • Science labs, water and mineral, 8th grade. Students gather data in lab, transfer findings to spreadsheet, and use formula to figure gravity and average. • Baseball/basketball statistics, 8th grade. Students gather facts and statistics on teams/players, enter data on spreadsheet, use formulas and make charts. • Computer exploratory class, 8th grade. Students learn the basics of EXCEL • Take raw data and make a data table
6,7,8	M3.2 Import a digital photo into a presentation/document.	<ul style="list-style-type: none"> • Insert a digital photo into a document 	Word HyperStudio Digital Camera Internet	<ul style="list-style-type: none"> • 6th grade research projects • 7th grade speech • 8th grade art projects
7	M3.3 Create a multi-media presentation	<ul style="list-style-type: none"> • Create multi-media presentations integrating sound, clip art, digital pictures, and hyperlinks to the web 	HyperStudio PowerPoint Digital Camera Scanner	<ul style="list-style-type: none"> • Do a presentation on some aspect of U.S. History using HyperStudio • 6th grade social studies research • 7th grade speech • 8th grade language arts book report on research

Strand #3 Technology Productivity Tools

Standard: Students use technology tools to enhance learning, increase productivity and creativity.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
6,7,8	M3.4 Contribute information and ideas to a class web page	<ul style="list-style-type: none"> • Publish original work on a class web page. • Access teacher created web page. 	FrontPage Adobe Pagemill Internet Hosting Service(s)	<ul style="list-style-type: none"> • Social studies creation of web page related to their study. • Language arts creation of web page posting book reviews
6,7,8	M3.5 Create his or her own web page to publish original work.	<ul style="list-style-type: none"> • Author their own web page to report and share findings with citations for other sources 	Internet Hosting Service(s) FrontPage Adobe Pagemill	<ul style="list-style-type: none"> • 8th grade computer exploratory class • Access a web hosting service, such as Geocities, and design their own web page for putting original work on (science fair project).
6,7,8	M3.6 Apply advanced word processing tools to produce a document	<ul style="list-style-type: none"> • Use advanced formatting tools including columns, tabs, wrap-arounds, hanging indents and spell check to documents. 	Microsoft Word	<ul style="list-style-type: none"> • Computer exploratory classes Social studies, Language Arts classes
6,7,8	M3.7 Create storyboard organizers to plan video, electronic slide presentations, or web pages.	<ul style="list-style-type: none"> • Group, synthesize and organize their research notes into a storyboard with references to photos, drawings, videos etc, before creating the multimedia project. 	Teacher created storybook organizer	<ul style="list-style-type: none"> • Multimedia presentation
6,7,8	M3.8 Create data base and print reports	<ul style="list-style-type: none"> • Practice using a database and understand the function of a database. 	Microsoft Access	<ul style="list-style-type: none"> • 8th grade computer exploratory class
9-12, Language Arts	H3.1 Word Process	<ul style="list-style-type: none"> • Use computer word processing to generate papers and assignments 	Microsoft Office	<ul style="list-style-type: none"> • Write papers, speeches, and project texts, create columns, generate outlines, documents, and change fonts, margins, etc.

Strand #3 Technology Productivity Tools

Standard: Students use technology tools to enhance learning, increase productivity and creativity.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
9-12, Math	H3.2 Construct Spreadsheet	<ul style="list-style-type: none"> • Compare various areas and volumes as measurements 	Microsoft Office	<ul style="list-style-type: none"> • Enter Data in a Spreadsheet and set up format • Create various graphs: Circle, Line, Bar
9-12, Business	H3.3 Develop Database	<ul style="list-style-type: none"> • Practice using a database with real life based projects 	Access	<ul style="list-style-type: none"> • Generate mailing labels, record books, address books, queuing information.
9-12, Communication classes/Myth-ology	H3.4 Create Multimedia Presentation	<ul style="list-style-type: none"> • Use of PowerPoint for a presentation • Use of video equipment/VCR 	PowerPoint computer program	<ul style="list-style-type: none"> • Communication class will use PowerPoint for the presentation of at least one speech during the semester. Speeches are video taped, tapes are viewed and reviewed. • Mythology students will use a PowerPoint presentation during a student-taught unit.
9-12, Social Studies	H3.4 Create Multimedia Presentation			
9-12, Science	H3.5 Contribute to Website	<ul style="list-style-type: none"> • Develop Web Site 	Computer Lab, Adobe PageMill, Digital Camera, Scanner	<ul style="list-style-type: none"> • Students and Teachers post assignments on Web Sites
9-12, Industrial Arts	H3.6 Use CAD			
9-12, Math	H3.7 Use Calculators	<ul style="list-style-type: none"> • Graph and Interpret data 	Personal Calculators	<ul style="list-style-type: none"> • Graph functions and Interpret results
9-12, Science	H3.8 Collect lab data electronically	<ul style="list-style-type: none"> • Measure Ph, Temperature, and speed 	Ph meter, Computer Probes	<ul style="list-style-type: none"> • Labs involving Ph, Temperature and motion
9-12, Science	H3.9 Utilize electronic balances	<ul style="list-style-type: none"> • Weigh various materials 	Electronic Balance	<ul style="list-style-type: none"> • Lab involving mass

Strand #4 Technology Communication Tools

Standard: Students publish, interact, and communicate information and ideas to multiple audiences.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
The pre-requisite skills needed for this strand are taught at the kindergarten level. However, the specific benchmarks and performance tasks are not measured until first grade.				
1.4.1	Recognizes e-mail as a form of communication	•Class creates message that teacher will e-mail to another audience.	Eudora or similar e-mail program	<ul style="list-style-type: none"> •After reading a book, class composes email to author. •Class composes invitation to another class or staff to come to a presentation.
1.4.2	Recognizes multi-media creations as a form of sharing information	•Students share group-created, multi-media presentation (see Benchmark 1.3.3)	Kid Pix	<ul style="list-style-type: none"> •After reading book, each student, or small groups of children, create page detailing what part of they especially enjoyed. Share with peers.
2.4.1	Recognizes multi media creations as a form of sharing information.	•Students share multi-media presentation (See performance Task 2.3.1)	HyperStudio Power Point	<ul style="list-style-type: none"> •Students create stack entitled "All About Me." Share with another class. •Students create a stack about an animal, place, or person they are studying. Share with invited audience such as parents.
2.4.2	Recognizes e-mail as a form of communication	•Class creates message that teacher will e-mail to another audience.	Kid Desk (in-class email) Eudora or similar e-mail program	<ul style="list-style-type: none"> •Develop keypals (communicate as whole class rather than as individuals)
3.4.1	Uses email to communicate.	•Group creates message that teacher will e-mail to another audience	Eudora	<ul style="list-style-type: none"> •After reading book, student composes email to author. After editing, teacher sends under his/her name.
3.4.2	Recognizes multi-media creations as a form of sharing information	•Will share multi-media presentations (See Performance Task 3.3.1)	HyperStudio	

Strand #4 Technology Communication Tools

Standard: Students publish, interact, and communicate information and ideas to multiple audiences.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
4.4.1	Uses email to communicate with expert to gain information	•Will send email to authority/expert asking for specific information, with teacher supervision	Eudora	•Class is working on oceans. One web site has email address for student questions. Student composes and sends email to gain information to complete project.
4.4.2	Recognizes multi-media creations as a form of sharing information	•Will share multi-media presentation (See 4.3.1)		
5.4.1	Recognizes multi-media creations as a form of sharing information	•Share HyperStudio presentation, using any peripheral such as a projector or LCD panel.		
6, 7, 8	M4.1 Use a web site to publish student work	• Posts a document or project on a web site	Internet	• Students put multimedia projects/reports onto a web page.
6, 7, 8	M4.2 Use of presentation tools to create a multimedia project.	• Use some form of multimedia when completing or presenting a report or project.	Internet Projector and/or remote display system HyperStudio PowerPoint Scanner	• Hyperstudio presentation through a LCD projector or other display system. • Use of scanner to import pictures onto documents. • PowerPoint presentation through LCD projector or other display system.
6, 7, 8	M4.3 Use of Iowa Communications Network (ICN) room to interact with others	• Participate actively with an ICN program and/or participate in an ICN program using a t.v. and the internet, asking questions to the presenters.	Internet Iowa Communications Network Room Television	• Class will interact live via satellite with t.v. specialists and/or other classrooms around the world.
6, 7, 8	M4.4 Use Interactive online resources	• Use of Online communication-posting student information and lesson resources on a web page.	Internet Virtual Classroom	• Students may take a test or access teacher instruction on the internet

Strand #4 Technology Communication Tools

Standard: Students publish, interact, and communicate information and ideas to multiple audiences.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
9-12, Language Arts (Journalism)	H4.1 Use a website to publish student work.	<ul style="list-style-type: none"> • Create a website 	Computer Network Manuals	<ul style="list-style-type: none"> • Student Newspaper published on-line • Students generate individual web sites
9-12, Staff	H4.2 Utilize presentation tools to present a multi-media project.			
9-12, Foreign Language	H4.3 Communicate with others globally with technology.			
9-12, Staff	H4.4 Utilize technology for assessment.			
9-12, Guidance	H4.5 Access and/or complete college applications and scholarships			
9-12, Staff	H4.6 Email an expert			
9-12, Staff	H4.7 Use ICN			

Strand #5 Technology Research Tools

Standard: Students use appropriate technology to locate, evaluate, and collect information from a variety of sources. Students use appropriate technology tools to process data and report results.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
K.5.1	Recognizes Internet as source of information	•Class will check an appropriate web site with assistance.	School site http://www.muscatine.k12.ia.us Web pages such as local weather, Dr. Seuss, Sesame Street	•Students will check weather page before recess to determine if it will be an indoor or outdoor recess. •Look at Dr. Seuss web page for his birthday
1.5.1	Uses Internet as source of information	•Class will check an appropriate web site with assistance.	School site http://www.muscatine.k12.ia.us Local weather channel	•Students will check weather page before recess to determine if it will be an indoor or outdoor recess. •Access favorite author's site
1.5.2	Uses computer as reference	•Will interact with article in electronic reference	Golden Book First Connections Children's Encyclopedia On-line encyclopedia resources	•Teachable moment: what is that? Let's find out in the Golden Book •Have Golden Book as a 'CD of the Week' that all children are to use at least once.
2.5.1	Uses computer as reference	•Use a keyword to gather information from an electronic reference	Golden Book First Connections Children's Encyclopedia Electric Library	•Teachable moment: What is that? Let's see what the Golden Book and Electric Library have to say about it. •Use electronic resources when studying a country or animal.

Strand #5 Technology Research Tools

Standard: Students use appropriate technology to locate, evaluate, and collect information from a variety of sources. Students use appropriate technology tools to process data and report results.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
2.5.2	Uses Internet as source of information	Class will check an appropriate web site with assistance.	School site http://www.muscatine.k12.ia.us Local weather channel	<ul style="list-style-type: none"> •Students will check weather page before recess to determine if it will be an indoor or outdoor recess. •Access favorite author's site.
2.5.3	Uses established bookmarks to view sites on the Internet.	<ul style="list-style-type: none"> •Will locate a site on the Internet using teacher-created bookmarks 	Internet Explorer	<ul style="list-style-type: none"> •When studying an animal or country, have students use bookmarks to find information quickly.
2.5.4	Determines best source of information	<ul style="list-style-type: none"> •Given a task, will determine which would give fastest or most accurate information - electronic or print 		<ul style="list-style-type: none"> •Much discussion and many examples are needed prior to any activity. Divide students into two groups. One uses printed material and one uses computer. Using Scavenger Hunt approach, give students lists of items to find either in the media center or on the Internet. Discuss at end of activity.
2.5.5	Takes notes from electronic resources.	<ul style="list-style-type: none"> •Given topic and teacher created bookmarks, group will take notes from these sources, including site address 	Teacher created bookmarks	

Strand #5 Technology Research Tools

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Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
3.5.1	Uses keywords to conduct searches of electronic data	•Complete simple keyword search to locate information on Internet, Electric Library, or electronic encyclopedia		
3.5.2	Creates bookmarks	•Find a site and bookmark it.		Give small group a selection of sites of on-line magazines or newspapers. They locate sight and bookmark it. Compare and contrast on-line with print formats.
3.5.3	Uses Internet as source of current events	•Read electronic magazines or newspapers on-line.		
4.5.1	Conducts Boolean searches to narrow results on Internet searches	•Uses Boolean search techniques (+ and -) to locate information on the Internet		•Use on-line card catalog
4.5.2	Recognizes that web sites on the same topic can vary with respect to accuracy, reliability, data, point of view, etc.	•Given two web sites, will be able to not differences and similarities.		
4.5.3	Locates, selects and organizes appropriate information from a variety of sources; electronic (Internet, CD), print, and personal interviews.	•Completes bibliography, citing all resources (specifically electronic) correctly	Media Specialist	
5.5.1	Analyzes web sites to determine validity, usefulness and possible bias of information	•Will complete Information Quality Checklist on a site of their choice.	Information Quality Checklist	

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Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
5.5.2	Refines search results by using tools provided by the specific search engines.	<ul style="list-style-type: none"> • Prepares written report or multi-media presentation which includes: <ul style="list-style-type: none"> • One electronic source of choice • other sources as needed 		
5.5.3	Locates, selects, and organizes appropriate information from a variety of sources; electronic (Internet, CD), print, and personal interviews			
6,7,8	M5.1 Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources <i>concerning real-world problems or in relationship to their task.</i>	<ul style="list-style-type: none"> • Examine a variety of web sites, listing characteristics of a good site, rating the value of the sites. 	Internet	<ul style="list-style-type: none"> • Science research on astronomy • Social studies research on cultures, history, states, current events, etc. • Language arts research on mythology, Holocaust, biographies.
6,7,8	M5.2 Use Internet to locate current information	<ul style="list-style-type: none"> • Explore weather, map quest, museums, and galleries. 	Internet	<ul style="list-style-type: none"> • Content area research and art • Virtual tours
6,7,8	M5.3 Select and use the most appropriate tools and technology resources to accomplish a variety of tasks and solve problems.	<ul style="list-style-type: none"> • Use a variety of tools, both print and electronic, in their research in order to learn which sources are most expedient and/or valuable to their task. 	Printed references (encyclopedias, almanacs, non-fiction books, etc.) Internet Electric Library On-line encyclopedias Ebsco Middle Search	<ul style="list-style-type: none"> • Research /problem solving in content areas

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Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
6, 7, 8	M5.4 Use content specific tools, software, and simulations (e.g. graphing calculators, robotics,) to support learning		Calculators Flight Simulator Car Builder Versa Cad Robotics Content area software Careers software STAR AR NovaNet	<ul style="list-style-type: none"> •Design Cars •Computer Aided Drawing of 3-D objects •Design a plane and fly it •STAR, AR, and NovaNet testing •Explore Careers
6, 7, 8	M5.5 Save and organize web sites into folders in Favorite file.	Research a topic and save sites in folders they create for each topic	Internet	<ul style="list-style-type: none"> • Social studies research • Science research • Language Arts research
6, 7, 8	M5.6 Understand and honor copyright laws and how they apply to their tasks.	<ul style="list-style-type: none"> • Use only copyright-free clip art, music, and pictures. 	Internet Multi-media applications	<ul style="list-style-type: none"> • Content area research
6, 7, 8	M5.7 Will follow rules of citing electronic resources used in their research and products	<ul style="list-style-type: none"> • Create accurate bibliographies for all research and problem solving tasks. 	Acceptable bibliographic model	<ul style="list-style-type: none"> • Content area research
6, 7, 8	M5.8 Understand the difference between search engines, directories, mega-search engines.	<ul style="list-style-type: none"> • Practice search strategies using the Internet. 	Internet	<ul style="list-style-type: none"> • Search exercises using Yahoo directory, search engines (Alta Vista) and mega-search engines (DogPile)
6, 7, 8	M5.9 Use on-line databases to solve problems.	<ul style="list-style-type: none"> • Become familiar with the data bases provided by the district, AEA, & school. 	Internet	<ul style="list-style-type: none"> • Content area research
9-12, Staff	H5.1 Explore and evaluate websites			

Strand #5 Technology Research Tools

Standard: Students use appropriate technology to locate, evaluate, and collect information from a variety of sources. Students use appropriate technology tools to process data and report results.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
9-12, Language Arts	H5.2 Use appropriate print or electronic resources.	<ul style="list-style-type: none"> • Gather sources for speeches, papers • Research careers and college information 	Internet, DISCOVER, Online Databases, Electric Library, SIRS, MHS card catalog on computer, EBSCO, Encarta, ProQuest, Britannica	<ul style="list-style-type: none"> • Outlines and speeches (Communications Classes) • Generate Works Cited pages, write papers (Composition, Eng 11 Enriched, AP Lang, AP Lit) • Questionnaires, career search worksheets, applications for college, interviews (English 11/11E) • Write papers such as I-Search and create projects (English 9/9E)
9-12, Staff	H5.3 Use more than one resource to verify information gathered.			
9-12, Language Arts, Communications	H5.4 Compile information into an outline or other graphic organizer.	<ul style="list-style-type: none"> • Gather sources for speeches 	Electric Library Internet SIRS EBSCO Encarta Britanica	<ul style="list-style-type: none"> • Writing outlines and speeches
9-12, Language Arts, English 11E – Composition	H5.5 Cite electronic sources	<ul style="list-style-type: none"> • Gather sources for papers 	Electric Library Internet SIRS EBSCO Encarta Britanica	<ul style="list-style-type: none"> • Generate works cited pages • Write papers
9-12, Staff	H5.7 Use online research databases provided by the district.			

Strand #5 Technology Research Tools

Standard: Students use appropriate technology to locate, evaluate, and collect information from a variety of sources. Students use appropriate technology tools to process data and report results.

Grade/ Department	Benchmark	Performance Task	Resources	Sample Activities
9-12, Guidance	H5.8 Locate and evaluate college info.			<ul style="list-style-type: none"> • Locate and evaluate job and financial information, surveys, resources, internet, etc. • Find web page, compare and contrast data
9-12 Language Arts, English 11/11E	Use of appropriate print and electronic resources	<ul style="list-style-type: none"> • Research careers and college information 	Discover Internet	<ul style="list-style-type: none"> • Questionnaires • Career search worksheets • Applications for college, interviews
9-12 Language Arts, English 9/9E	Use of appropriate print and electronic resources	<ul style="list-style-type: none"> • Research papers and projects 	Discover Internet	<ul style="list-style-type: none"> • I-Search paper • Projects